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Claims

1. A recombinant DNA sequence encoding a human platelet-derived growth factor (PDGF) A-chain polypeptide.  
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2. The recombinant DNA sequence of claim 1 which encodes a PDGF A-chain polypeptide comprising the amino acid sequence numbered 87 to 193, inclusive, in  
10 Figure 1.
3. The recombinant DNA sequence of claim 1 which encodes a PDGF A-chain polypeptide comprising the amino acid sequence numbered 87 to 196, inclusive, in  
15 Figure 1 or Figure 2.
4. The recombinant DNA sequence of claim 1 which encodes a PDGF A-chain polypeptide comprising the amino acid sequence numbered 87 to 211, inclusive, in  
20 Figure 1.
5. The recombinant DNA sequence of claim 1 which encodes a PDGF A-chain precursor polypeptide comprising the amino acid sequence numbered 1 to 196 in  
25 Figure 1 or Figure 2.
6. The recombinant DNA sequence of claim 1 which encodes a PDGF A-chain precursor polypeptide comprising the amino acid sequence numbered 1 to 211 in  
30 Figure 1.
7. A recombinant expression vector containing and effective in expressing the DNA sequence of claim 1.

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8. A recombinant expression vector containing  
and effective in expressing the DNA sequence of claim 2.

9. A recombinant expression vector containing  
5 and effective in expressing the DNA sequence of claim 3.

10. A recombinant expression vector containing  
and effective in expressing the DNA sequence of claim 4.

10 11. A recombinant expression vector containing  
and effective in expressing the DNA sequence of claim 5.

12. A recombinant expression vector containing  
and effective in expressing the DNA sequence of claim 6.

15 13. A recombinant expression vector containing  
and effective in expressing (a) the DNA sequence of  
claim 1 and (b) a DNA sequence encoding PDGF B-chain.

20 14. The recombinant expression vector of claim  
7 wherein the DNA sequence is operably linked to control  
sequences compatible with a yeast host.

25 15. The recombinant expression vector of claim  
14 wherein said control sequences direct secretion of  
PDGF formed from the PDGF A-chain polypeptide.

30 16. The recombinant expression vector of claim  
7 wherein the DNA sequence is operably linked to control  
sequences compatible with a mammalian host.

17. Yeast cells transformed with the  
recombinant expression vector of claim 14.

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18. Yeast cells transformed with the  
recombinant expression vector of claim 15.

19. Mammalian cells transformed with the  
5 recombinant expression vector of claim 16.

20. The mammalian cells of claim 19 which are  
transformed with an expression vector containing and  
effective in expressing a DNA sequence encoding PDGF  
10 B-chain.

21. A method of producing recombinant PDGF  
comprised of PDGF A-chain polypeptide comprising growing  
the yeast cells of claim 17.  
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22. A method of producing recombinant PDGF  
comprised of PDGF A-chain polypeptide comprising growing  
the yeast cells of claim 18.

23. A method of producing recombinant PDGF  
comprised of PDGF A-chain polypeptide comprising growing  
the mammalian cells of claim 19.  
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24. A method of producing recombinant PDGF  
25 comprised of PDGF A-chain polypeptide and PDGF B-chain  
comprising growing the mammalian cells of claim 20.

25. Recombinant PDGF comprised of a PDGF  
A-chain polypeptide comprising the amino acid sequence  
30 numbered 87 to 193, inclusive, of Figure 1, or an analog  
of said sequence that is substantially homologous and  
functionally equivalent thereto.

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26. Recombinant PDGF comprised of a PDGF  
A-chain polypeptide comprising (a) the amino acid  
sequence numbered 87 to 196, inclusive, of Figure 1, (b)  
the amino acid sequence numbered 87 to 196, inclusive,  
5 of Figure 2 or (c) an analog of (a) or (b) that is  
substantially homologous and functionally equivalent  
thereto.

27. Recombinant PDGF comprised of a PDGF  
10 A-chain polypeptide comprising the amino acid sequence  
numbered 87 to 211, inclusive, of Figure 1, or an analog  
of said sequence that is substantially homologous and  
functionally equivalent thereto.

15 28. Recombinant PDGF comprised of (a) a PDGF  
A-chain polypeptide comprising the amino acid sequence  
numbered 87 to 193, inclusive, of Figure 1, or an analog  
of said sequence that is substantially homologous and  
functionally equivalent thereto, and (b) a PDGF B-chain.

20 29. Recombinant PDGF comprised of (a) a PDGF  
A-chain polypeptide comprising the amino acid sequence  
numbered 87 to 196, inclusive, of Figure 1 or Figure 2,  
or an analog of said sequence that is substantially  
25 homologous and functionally equivalent thereto, and (b)  
a PDGF B-chain.

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*add  
B2*

*add  
H2*

*add T1*

*add T2*